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GUADALCANAL CAMPAIGN

1.0 INTRODUCTION

GUADALCANAL CAMPAIGN is an operational level game featuring combat between U.S. and Japanese air, land, surface-naval and submarine forces for the control of Guadalcanal in 1942. Every ship, airplane, or infantry company available to the local Japanese and American commanders in 1942 is now under your control. You will need to organize your ships into task forces to perform various missions: sea lane interdiction and combat, land bombardment, support of air operations, and others. All play revolves around the creation of these task forces and your effective manipulation of them. Included are a campaign game (covering all the action from 7 August to 31 December 1942) and 4 mini games (featuring the major battles in the Solomons).

1.1 Description of Action

Each game turn represents the passage of 12 hours. A game turn consists of (1) building and adjusting friendly task forces; (2) moving your task forces; (3) launching air missions during daylight turns; (4) combat resolution.

1.2 Talking to the Computer

To enter a response to the computer that consists of numbers (such as ship or task force identification numbers or the number of aircraft performing a mission), type the number into the computer and press the return key. To select a routine from the Task Force Menu or answer a Yes/No question, just press the desired key. If you wish to halt the game during the combat resolution phase, type CNTRL-C. This will cause the program to pause until you press another key.

1.3 Saving a Game

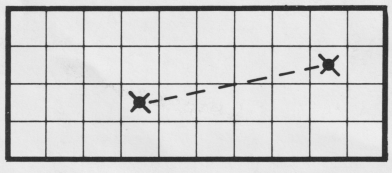
Upon completion of the Combat Phase of each turn the computer will allow the player(s) to save the game in progress. You will need a scratch disk to store the saved game data. Each disk may save up to 4 games. The disk must be initialized for SSI use by following the instructions included in the program. Once the game is saved you will be able to restart it from the point at which you left off.

1.4 The Map

The map is a 40 × 40 square grid representation of the Southwest Pacific with each square measuring 60 nautical miles in width. Green squares are land, white squares are bases or ports, red squares are Japanese task forces, blue squares are U.S. task forces, black squares are open ocean. Each space is 60 nautical miles wide. The range between two squares is calculated from the center of the first square to the center of the second square. The number thus obtained is rounded *up*.

Example:

5 squares over, 1 square up, equals range of 5.099 or 6.



1.5 Starting a Game (DOS 3.2 or DOS 3.3)

To begin a game, boot your game disc and the game will begin automatically. If you are using an Apple II with *Pascal*, you must first use your BASICS disc. If you are using an Apple III you must first go into Apple II Emulation Mode.

2.0 GENERAL DESCRIPTION

2.1 Parts Inventory

A. Game box
B. Rule book
C. 5¼" Game disc
D. Two map data cards

2.2 Passwords

At the start of a non-solitaire game both sides will be required to enter a password. The password may contain any combination of letters and numbers less than 256 in length. It is important that both sides keep their passwords secret to insure that the computer will give secret information only to the proper side. Some sample passwords are: "IJN", "1942", and "A".

2.3 Abbreviations

Abbreviations used in the game are explained below:

CV – Aircraft Carrier
CVL – Light Aircraft Carrier
BB – Battleship
CA – Heavy Cruiser
CLAA – Light Anti-Aircraft Cruiser
CS – Seaplane Tender
TK – Tanker
TF – Task Force
IJN – Imperial Japanese Navy
MG – Main Guns
AA – Light Guns
TT – Torpedoes
MS – Maximum Speed
SU – Supply Units on Board
DM – Damage Percentage
CL – Light Cruiser
DD – Destroyer
DMS – Minesweeper
ML – Minelayer
APD – Destroyer Transport
SS – Submarine
TR – Transport
CAP – Combat Air Patrol
USN – United States Navy
CC – Cargo/Aircraft Capacity
IF – Infantry Companies On Board

3.0 SEQUENCE OF PLAY

GUADALCANAL CAMPAIGN is designed to be a two-sided game: American vs. Japanese. The American forces must be commanded by a human player. The Japanese forces may be commanded by either a human or the computer.

3.1 Scenario Selection Phase

During the scenario selection phase the player(s) select a scenario and determine the conditions under which the game will be played. The set-up may be altered by entering the following numbers:

<**1**> New game vs. Save game
<**2**> Color TV vs. Black & white TV
<**3**> Solitaire vs. Two-player
<**4**> Solitaire level of difficulty (1–4)
<**x**> Sound On vs. Sound Off

The scenario may be altered by entering the following numbers:

<**5**> Campaign game (Aug. 7 to Dec. 31, 1942)
<**6**> Coral Sea (May 4 to May 9, 1942)
<**7**> Eastern Solomons (Aug. 24 to Aug. 25, 1942)
<**8**> Santa Cruz (Oct. 26 to Oct. 27, 1942)
<**9**> Guadalcanal (Nov. 12 to Nov. 15, 1942)
<**0**> Campaign.2 (Oct. 1 to Dec. 31, 1942)

3.2 Historical Set-up

At the start of each game the computer will assign all ships, aircraft, infantry and supplies to their historical locations prior to the battle.

3.3 Daytime (AM) Sequence

A. American TF adjustment phase
B. American movement phase
C. Japanese TF adjustment phase
D. Japanese movement phase
E. Japanese air operations phase
F. American air operations phase
G. Combat resolution phase
H. Save game phase

3.4 Nighttime (PM) Sequence

The PM sequence is the same as the AM sequence except steps E and F are deleted.

3.5 Keeping Time

An AM turn followed by a PM turn equals one day. The calendar is adjusted at the end of the PM turn.

4.0 TASK FORCE ADJUSTMENT PHASE

At the start of the task force adjustment phase the computer will display a menu listing four options for adjusting your forces and six options for reviewing the status of your forces. To enter the desired routine just press the corresponding numbered or lettered key.

4.1 Forming Task Forces

A. Enter the code for the port in which you will assemble your TF (E, B, R, T).
B. Enter the code for the mission your TF will perform. See section 9.2 for a list of the possible missions.
C. The computer will list those ships in the selected port that are *eligible* to perform the selected mission. Each ship will be displayed with its I.D. number.
D. Assemble your TF by entering the desired ship numbers. In some cases the screen cannot list all of the eligible ships at once; if you do not see the ships that you want, press <RETURN> and another batch of ships will be listed.
E. When the computer prompts "CONTINUE SELECTION Y/N" press <Y> if you are satisfied with your selection. Press <N> and the computer will run through the list again.

4.2 Combining TFs

Two TFs occupying the same grid location may be combined in the following manner:

A. Enter the number of the "gaining" TF and the "merging" TF.
B. All ships in the "merging" TF will be added to the "gaining" TF and the merging TF will be deleted.
C. If the merging TF had a lower endurance level then the gaining TF will assume that endurance level.
D. If the merging TF had an "R" or "FR" mission then the gaining TF will assume an "R" mission.
E. Submarine TFs may not combine with non-submarine TFs.

4.3 Dividing TFs

A. Enter the number of the TF you wish to divide. The computer will list the ships in the selected TF. A ship with " *** " printed after its name is crippled.
B. If you already have seven active TFs in play, the computer will display the message "TOO MANY ACTIVE TF'S." and return to the menu.
C. Enter the number of the ships you wish to transfer to a new TF. The computer will set up a new TF for you. The new TF will have the same mission and endurance as the original TF.
D. When there are six or fewer friendly TFs in play the DIVIDE TF function may be used to "scuttle" crippled ships. Just enter the letter "S" following the number of the ship you are transfering. Your opponent will receive one less victory point for ships that are scuttled than would ordinarily be rewarded for a ship sunk involuntarily (your crew is assumed to have been removed safely).

4.4 Loading Transports

Before troops and supplies may be moved to Guadalcanal they must first be loaded onto ships in a friendly port.

A. Use the LOAD TRANSPORTS–TRAIN CV PILOTS routine, enter the code for the port in which the loading is to take place. The computer will list all eligible ships in that port with a cargo capacity greater than zero.
B. Enter the number of the ship you wish to load and then enter the number of infantry companies and/or supply units you wish to load. Each infantry company represents 200 men.
C. If you wish to unload cargo while still in port type a U in response to the question "number of infantry companies/supply units to be loaded?" By typing a U the current cargo will be unloaded.

4.5 Training Carrier Pilots

To replace losses for depleted carrier air groups, land-based aircraft (pilots) must be trained for carrier operations.

A. Use the LOAD TRANSPORTS–TRAIN CV PILOTS routine. Select the code for the port that is furnishing the aircraft for training. The carrier must already be assigned to this port.
B. Enter the number of the carrier that is to receive the aircraft.
C. The computer will list all of the aircraft available in the port. Enter the quantity you wish to transfer.
D. The carrier will be taken out of circulation for 15 days while the "training" is being accomplished.
E. Betty, Nell and Fortress aircraft may never operate from carriers.

4.6 Checking the Pipeline

Reinforcements and repaired vessels will periodically be sent to ports you control. To check the status of these units, you may request the current condition of your ship "pipeline".

A. Enter the code (E, B, R, T) for the port you wish to check.
B. The computer will list all ships currently in that port and all ships due to arrive there.
C. For ships in the repair, refit or reinforcement "pipeline" the computer will list the time in days before that ship can return or arrive.

4.7 Sunk Ships Display

The computer will list all ships that have been sunk and the points awarded for their sinking.

4.8 Air Group Display

The computer will display the number of each type of aircraft assigned to each friendly airbase or carrier that is active.

4.9 List Active TFs

A. The computer lists the TF number, mission and endurance for each friendly TF currently in play.
B. The computer will prompt "CHECK SHIP STATUS Y/N". If you wish to examine the ships in a particular TF then press <Y> and then enter the number of the TF you wish to examine.

4.10 Map Display

The computer will display the map and all friendly active TFs. If you wish to locate a particular friendly TF on the map then enter that TF's number. The TF's square will flash to indicate its location.

4.11 Guadalcanal Status Display

The computer will display the number of troops and supply dumps you control on Guadalcanal.

4.12 Ending the Game

Both players should agree before ending the game. The computer will display the final score.

5.0 TASK FORCE MOVEMENT

TFs move by expending movement points. The number of movement points a TF is allowed is dependent on the TF's "fleet speed".

5.1 Fleet speed

A. A TF's fleet speed is calculated as 25 knots *or* the speed of the slowest ship in the TF, whichever is lower.
B. The speed of a TF which is assigned a "fast" mission will be 30 knots *or* the speed of the slowest ship in the TF, whichever is lower.

5.2 Movement

A. A TF receives 1 movement point for each 2½ knots of fleet speed. A TF will receive a *minimum* of 3 movement points.
B. A TF expends 2 movement points for each square moved in directions N, S, E, W.
C. A TF expends 3 movement points for each square moved in directions NW, NE, SW, SE.
D. A TF with fewer than 2 points remaining in its move may not move any further, but it may still "dock".
E. If you accidently press the wrong key while moving, you may then press the <A>bort key and start your move over. This may not be done after you have docked a TF.
F. A TF may never enter a land square. A TF may move freely through any other square.

5.3 Movement sequence

A. During the movement phase friendly TFs *must* be moved sequentially according to TF number. Once a TF has completed its move the action cannot be reversed.
B. A player may examine the ships in a TF at any time during the TF's movement segment. Press the <S>hips key and the computer will give a complete status display for each ship in the TF. The column heading abbreviations for the display are as follows: MG = main guns, AA = light guns, TT = torpedoes, CC = cargo/aircraft capacity, MS = maximum speed, IF = infantry companies on board, SU = supply units on board, DM = damage percentage.

6.0 PLANNING LAND ATTACKS

During AM turns the computer will display the number of troops and supplies available and if you are eligible to attack the computer will prompt "DO YOU WISH TO ATTACK Y/N".

A. To attack press <Y> and then enter the level (1 to 5) of your attack.
B. A level 1 attack is a reconnaissance in force and will consume 1 supply dump. A level 5 attack is an all out Banzai charge and will consume 5 supply dumps, etc.
C. If supply is insufficient for the planned level of attack then the attack will not occur.

7.0 AIR OPERATIONS

During the Air Operations phase a player may (1) launch CAP and search aircraft (2) observe search results (3) launch air strikes (4) prepare counterstrikes (5) transfer aircraft.

7.1 CAP and Search Missions.

A. At the start of each Air Operations Phase each player must determine how many of his fighters will fly CAP missions and how many of his bombers will fly search missions. **Aircraft performing CAP or Search may not participate in Air Strikes during that turn.**
B. Fighters may fly two types of CAP missions: (1) normal CAP and (2) Long Range CAP. Normal CAP will protect only the TF or Airbase from which it originated. Long Range CAP will protect any friendly TF within 5 square range of the launching base or carrier. Only a *fraction* of an air group performing Long Range CAP will intercept an enemy air strike (the greater the distance between the CAP's home base and the airstrike target — the smaller the fraction). The percentage of planes intercepting is as follows:

Range of Target	% of CAP Intercepting
0	76
1	43
2	30
3	23
4	18
5	15

C. Bombers may fly two types of Search Missions: (1) normal search and (2) sub search. Normal Search Missions can detect only enemy surface TF's. Sub Search missions can detect only enemy submarines.
D. Each active airbase is equipped with 10 *float planes* which automatically fly search missions every AM turn. These planes fly independently (they will not fly in conjunction with bombers flying from the same airbase). These float planes may never be destroyed.
E. All BB, CA, CL, CLAA and CS class ships are equipped with *float planes*. The cruisers Tone and Chikuma and all CS class ships will each add 3 float planes to its TF's search mission. All the other listed ships will add 1 float plane to its TF's search mission. Float planes will only perform normal search. A ship which suffers any damage at all can no longer launch its float planes. Ship launched float planes will search separately from bombers launched from carriers.
F. Search ranges for aircraft are listed below:

DAUNTLESS	10	FORTRESS	20	BETTY	20
AVENGER	10	VAL	12	NELL	20
DEVASTATOR	6	KATE	12	FLOAT	20

Range is calculated as shown in section 1.4.

G. The maximum search range of a base or TF is equal to the search range of the *lowest* range search plane.

7.2 Search Results Display.

A. During the Search Phase the computer will list the numbers of each enemy TF sighted and display its location on the map with the appropriate Red or Blue square.
B. If you wish to examine the contents of an enemy TF just type the TF number and press Return. The computer will list the symbols for each ship assigned to that TF. (CV, BB, CA, CL, DD, etc.) The computer will also cause the TF's location square to flash on the map. The ship types reported may be incorrect as might be the number of ships reported sighted. You may only look at each sighted TF once per search phase.
C. Press <E> to exit the Search Results Display.

7.3 Launching Air Strikes.

Enemy TFs sighted on the Search Results Display may be attacked by available friendly aircraft within range.

A. The computer will request a target for each friendly active airbase/carrier. Type in the TF number of the enemy TF you wish to attack. The computer will list the range to the target and ask you how many of each type of aircraft you want to launch. The computer will not allow you to launch aircraft beyond their range. The computer will not allow you to attack unsighted enemy TFs. Each TF or base may launch only one airstrike per turn. However, each TF may launch one airstrike and also prepare a counterstrike.

B. The Japanese Player may bomb Henderson Field by targeting TF #1. The Americans may bomb the Cape Esperance Supply Base by targeting TF #11.
C. The ONLY bases that may be attacked are those listed in paragraph 7.3.B.
D. The Attack Ranges for aircraft are listed below:

Wildcat	5	Zeke	15
Dauntless	5	Val	6
Avenger	5	Kate	6
Devastator	3	Betty	15
Fortress	18	Nell	15

E. Zeke and Wildcat aircraft may be included in Air Strikes but they may never attack enemy surface or submarine targets. They function as escorts to protect the bombers and shoot down enemy CAP.

7.4 Preparing Counterstrikes.

Aircraft Carriers may reserve none, some, or all of their aircraft for Counterstrike Missions. If the carrier's TF is attacked by an enemy *carrier* air group then the counterstriking aircraft will "follow" that air group home and attack the enemy carrier's TF.

A. During the Counterstrike Preparation Phase the computer will list the remaining (those not flying CAP, Search or Strike missions) carrier aircraft and ask how many of each you plan to reserve for counterstrikes.
B. If a carrier receives *26% or greater damage* or has its speed reduced *below 15 Knots* then it cannot launch its counterstrike.
C. Airbases may never prepare counterstrikes.
D. Counterstrikes will never attack enemy airbases.
E. Counterstrike aircraft on the decks of carriers may explode if the carrier is hit by bombs, torpedoes or gunfire. Each aircraft that explodes will cause 1 damage point. US carriers are only vulnerable to aircraft exploding on deck during the Coral Sea mini game.

7.5 Aircraft Transfers.

Aircraft may be transferred freely between airbases and/or carriers with the following restrictions.

A. Only 1 air transfer mission may be performed each AM turn.
B. Fortress aircraft may never transfer.
C. Aircraft may never transfer from an airbase to a carrier (this requires pilot training — see para. 4.5)
D. For transfer purposes aircraft have their range tripled.
E. The Japanese may transfer *only* Zeke aircraft into the Shortlands Airbase.

7.6 Airbases.

A. The Japanese player may operate aircraft from the following airbases: Rabaul, Truk and Shortlands. The Shortlands Airbase does not become active until October 7th.
B. The American Player may operate aircraft from the following airbases: Henderson Field, Espiritu Santo and Brisbane. The Henderson Field Airbase does not become active until August 20th.

8.0 COMBAT RESOLUTION

During the Combat Resolution Phase the computer will automatically perform the following functions:
(1) Airstrike Resolution
(2) Surface and submarine combat resolution
(3) Coastal Bombardment
(4) Return aircraft to their bases and carriers
(5) Launch and Resolve Counterstrikes
(6) Return aircraft to carriers
(7) Unload Transports
(8) Resolve combat on Guadalcanal
(9) Repair & Refit of ships
(10) Activate Reinforcements.

8.1 Air Strike Resolution.

Each Air Strike is resolved in 3 segments:
(1) CAP resolution
(2) Flak Resolution
(3) Bomb or torpedo hit resolution.

A. Before an airstrike group can attack an enemy TF or base it must first survive the onslaught of each CAP fighter group protecting the target. Individual CAP fighters will randomly select a bomber or escort fighter target and attack it. If the attack fails to shoot down the target aircraft then the target aircraft will counter-attack. This sequence is repeated for each participating CAP fighter. Once 50 CAP planes have intercepted an air strike, the effectiveness of further CAP will be reduced by 50%. CAP over 100 will be reduced in effectiveness by 75%.
B. An example of CAP target selection is as follows:
If an airstrike has 10 escort fighters and 20 bombers then each CAP fighter will have a 33% chance of selecting an escort fighter for a target and a 67% chance of selecting a bomber for a target.
C. The following table shows the chances for a CAP fighter to destroy each type of aircraft and the chances of a counter-attack destroying the CAP fighter:

AIRCRAFT SHOT DOWN		AIRCRAFT SHOOTS DOWN CAP FIGHTER	
Zeke	18% (27%)	22%	(13%)
Wildcat	18%	22%	
Val	35%	5%	
Dauntless	35%	5%	
Kate	35%	5%	
Avenger	35%	5%	
Devastator	35%	5%	
Betty	35% (52%)	5%	(1%)
Fortress	10%	10%	

The numbers in parentheses are for Rabaul-based aircraft making LONG RANGE STRIKES.

D. Each bomber that survives CAP combat will select a target ship from those in the target TF and attempt to penetrate the TF's flak and deliver its ordnance. Target selection is accomplished in the following manner: each ship is assigned a selection value (SV) equal to its Defense Factor plus ten times its cargo/aircraft capacity. The chance of a particular ship being attacked is equal to the SV of that ship divided by the combined SV of the target TF.
E. The chance of a bomber being shot down by flak is equal to the TF Flak Strength divided by 500. The TF Flak Strength is equal to the combined AA ratings of all ships in the TF. If there are more than 12 ships in the TF then the TF Flak Strength is equal to the *Average* AA Rating for ships in the TF times 12. For Japanese TFs the Flak Strength will be *halved*. (Japanese AA fire was usually ineffective.) AA fire directed at B-17's will be only 1/10 as effective as against all other aircraft.
F. The chances of bombers hitting their targets are affected by: (1) bomber accuracy (2) maximum speed of target (3) flak intensity (4) the range of the strike (5) size of target. The relative accuracy of each bomber is listed below:

FORTRESS	1	BETTY	4
AVENGER	2	KATE	8
DEVASTATOR	2	VAL	16
DAUNTLESS	12	NELL	2

All bombers are equally accurate when attacking enemy bases except the FORTRESS which will cause *twice* the damage of the other bombers. Air strikes against bases can only destroy parked aircraft or supply dumps.
G. The first airstrike on any particular submarine will cause the submarine to submerge. The act of submerging will protect the submarine from further air attacks during that turn.

8.2 Surface Combat Resolution.

Surface combat may occur between opposing TF's that occupy the same space if at least one of the TF's is performing a Combat Patrol Mission (C) and has an endurance of at least 9.

A. Surface combat is resolved using the following sequence: (1) each U.S. ship in a TF performing a "C" mission will fire at one of the ships from one of the Japanese TFs in the same space (2) each Japanese ship that occupies the same space as the attacking U.S. TF will fire at one of the ships from the attacking TF (3) each Japanese ship in a TF performing a "C" mission will fire at one of the ships from any U.S. TF that occuppies the same space (4) each U.S. ship that occuppies the same space as the attacking Japanese TF will fire at one of the ships from the attacking TF.

B. Target selection for surface combat is similar to that used for air attacks. In surface combat a ship's selection value (SV) is equal to that ship's defense factor.

C. When attacking, each ship will (1) fire torpedoes (2) fire main guns (3) fire secondary guns. Ships carrying 12 or more torpedoes will fire *half* of them at the target. Ships carrying less than 12 torpedoes will fire *all* of them at the target.

D. The accuracy of gun fire and torpedoes is adjusted according to the speed and size of the target. Japanese surface launched torpedoes will be 8 times more accurate than U.S. surface launched torpedoes. Japanese gunfire will be twice as accurate as U.S. gunfire except the U.S. battleships which will be 50% more accurate with gunfire than the Japanese.

E. During the first 7 days of the campaign game U.S. ships will suffer a major disadvantage in surface combat.

F. The following restrictions apply during daylight surface combat: (a) AA guns will not fire at ships with main guns. (b) IJN torpedo accuracy is reduced by 2/3 when firing at uncrippled ships. (c) USN ships will only fire torpedoes at crippled ships.

G. APD's and DMS's will fire only 50% of the time during surface combat. TR's, TK's, CV's, and CVL's will never fire. A ship that picks as its target a ship that has already sustained enough damage to sink, will not fire. A ship that picks as its target a carrier, will only fire if it has a speed greater than the carrier.

8.3 Submarine Combat.

A. Submarines patrol an area up to 2 spaces away from their actual TF location.

B. Each sub in a TF will have about a 10% chance of attacking an enemy surface TF within its patrol area. Each sub in a TF will have about a 2% chance of attacking an enemy sub TF within its patrol area.

C. The chance of engaging and torpedoing an enemy ship will be reduced by the number of escorts (DD, DMS, APD) present in the defending TF.

D. A sub which has been sighted by enemy sub search will have its chance for successful attack reduced and its chance of being sunk by "depth charge" increased.

E. When attacking, submarines will fire a salvo of 6 torpedoes OR all of their remaining torpedoes, whichever is less.

F. Japanese submarine torpedoes will be 2.5 times more accurate than U.S. submarine torpedoes.

G. After a submarine launches an attack opposing escorts will fire depth charges at the sub. American depth charges are twice as effective as Japanese depth charges.

8.4 Coastal Bombardment.

If a TF with a "B" mission ends its move on the Henderson Field base square then it will automatically bombard during the combat resolution phase (unless forced to abort due to surface combat).

A. Japanese bombardments will destroy parked aircraft and supply dumps on Henderson Field.

B. U.S. bombardments will destroy Japanese supply dumps.

C. A ship which has sustained 10% or greater damage will not bombard.

D. Only the four "heaviest" ships in a bombardment TF will bombard.

E. For bombardment purposes BB main guns have 12 times the firepower of all other main guns and 24 times the firepower of AA guns.

F. Bombardment missions may be aborted if the TF engages in surface combat with a large enemy TF.

8.5 Aircraft Returning to Base.

A. After completing their missions, aircraft will attempt to return to the same base or carrier from which they were launched.

B. If launched from a carrier which received 26% or more damage or had its speed reduced below 15 Knots, the aircraft will try to make an "emergency" landing on another carrier or airbase.

C. Emergency landings will occur automatically if there is a friendly base or carrier within 3 squares of the origin carrier.

D. If an emergency landing is required and there are no eligible bases or carriers within 3 squares then the aircraft will ditch in the ocean.

E. Strike aircraft will land before Counterstrikes are launched. CAP and Search aircraft will land after all other air operations have been completed.

8.6 Unloading Transports.

Any ship carrying troops or supplies, whose TF ends its move on the Henderson Field space, will unload some or all of its passenger/cargo on Guadalcanal.

A. A ship can unload a maximum of **2 infantry companies** OR **1 supply dump** OR **1 infantry company and one supply dump** in a single turn.

B. Infantry and supplies may be used for land combat on the same turn they are unloaded.

8.7 Land Combat.

Planned land attacks (see section 6.0) will be executed during the combat resolution phase. First U.S. attack resolution will be completed, then Japanese attack resolution.

A. All **available** attacker forces will participate in the attack and are subject to casualties. The U.S. Force must reserve 9000 men (45 companies) to defend Henderson Field, these 9000 men are NOT AVAILABLE to attack. The U.S. Forces will not attack with less than 10000 men on Guadalcanal.

B. Land attack procedure is as follows: (1) defender forces open fire inflicting casualties on the attacker (2) surviving attacker forces inflict casualties on the defender (3) the computer gives an estimate of the remaining defender forces (± 50%).

C. Defending against Japanese attacks will consume 1 U.S. supply dump. If there are no U.S. supply dumps on Henderson Field then U.S. casualties will be DOUBLED.

D. As a general rule, the higher the level of attack (1-5) the greater the casualties inflicted on both sides.

E. Japanese troops attack at ⅔ effectiveness.

8.8 Repair and Refit of Ships.

A. Damaged ships which docked during the previous movement phase are placed in the REPAIR PIPELINE. Undamaged CV, CVL, BB, TR and SS class ships will be placed in the REFIT PIPELINE. Damaged CV, CVL, BB, TR and SS class ships must complete both REPAIR and REFIT PIPELINE functions before they can be reactivated. REFIT requires one week in Truk or Brisbane and two weeks in Rabaul or Espiritu Santo. (Submarines require only one week REFIT irrespective of port.) A TF that docks with an endurance remaining greater than 50 will not be required to REFIT.

B. Undamaged ships (other than those mentioned in para. A), which docked during the previous movement phase, do NOT require REFIT. These ships may be placed in a TF with a full endurance during the next TF Adjustment Phase.

C. The average number of turns needed for repair is equal to 8 to 10× damage points suffered. Repairs performed in Rabaul and Espiritu Santo will require 20% longer than the formula given above. The number of damage points sustained by a ship can be calculated by multiplying the ship's DF by the percentage damaged. Also, repair time for a ship may be doubled with smaller ships having a greater chance of lengthened repair time (there is 71% chance that an average DD's repair time will be doubled while a US BB has only a 6% chance of requiring

double repair time).

8.9 Reinforcement Arrival.

Ship reinforcements will arrive on a day to day basis as scheduled on the Pipeline Display. Infantry and aircraft reinforcement may arrive during AM game turns. Infantry and aircraft reinforcements will be as follows:

	INF CO.	ZEKE	VAL	KATE	BETTY
RABAUL	11	18R	0	0	24R
TRUK	0	7	7	6	0
SHORTLANDS	0	18R	0	0	0
	INF CO.	**WILDCAT**	**DAUNTLESS**	**AVENGER**	**FORTRESS**
ESPIRITU SANTO	8	7	6	3	3
BRISBANE	0	7	8	4	0

A. Aircraft reinforcements coded "R" are actually replacements. Rabaul will only receive Betty replacements if there are less than 40 Bettys currently on hand. Rabaul or Shortlands will only receive Zeke replacements if there are less than 30 Zekes on hand.
B. If Shortlands receives Zeke replacements then Rabaul will *not* receive Zeke replacements.
C. Shortlands will not receive any aircraft until after October 6th.
D. Each AM turn there is a 1/7 chance of occurrence for each of the following events:
   1) Infantry reinforcements arrive in Rabaul and air reinforcements arrive in Truk.
   2) Air replacements arrive in Rabaul and Shortlands.
   3) Infantry reinforcements arrive in Espiritu Santo and air reinforcements arrive in Brisbane.
   4) Air reinforcements arrive in Espiritu Santo.

9.0 GENERAL OPERATIONS

9.1 Damage To Ships.

Ships accrue damage "points" when they are hit by bombs, torpedoes or gunfire. When the total damage points are greater than or equal to a ship's defense factor (DF) then that ship will sink. When total damage points are greater than or equal to 50% of a ship's DF then that ship is "Crippled".

A. A table listing the average damage points caused by each type of weapon is shown below:

Light (AA) gun	.5	Bomb	3
CL main gun	1	21 inch torpedo	5
CA main gun	2	24 inch torpedo	9
Yamato main gun	9		
US BB main gun	8		
Mutsu main gun	7		
Other Japanese BB main gun	6		

   21 inch torpedo hits will reduce a ship's maximum speed by at least 5 Knots. 24 inch torpedo hits will reduce a ship's maximum speed by at least 10 Knots. Only Japanese surface ships carry the 24 inch torpedo. Whenever a ship is hit it may suffer additional damage due to a critical hit. The message "explosion on board the ..." reveals that a critical hit has been scored.
B. CV and CVL class ships with 26% or more damage or a maximum speed less than 15 Knots may not launch or land aircraft. *Note: This means that carriers in TF's reduced to 5 knots due to 0 endurance will not be able to launch aircraft.*
C. Ships with 10% or more damage will not bombard enemy bases.
D. Crippled ships have a maximum speed of 5 Knots and may accrue additional damage while returning to port. Major additional damage will be shown by the message "explosion on board the ...". It is also possible for a ship to repair itself while at sea. Repairs will be attempted until the ship is no longer crippled.

9.2 TF Missions.

Listed below are the missions that may be assigned to a TF and the endurance allowed for each mission:

C – Combat Patrol : endurance = 60 turns (30 days)
B – Bombardment : endurance = 60
T – Transport : endurance = 60
U – Submarine : endurance = 80
FC – Fast Combat Patrol : endurance = 6
FB – Fast Bombardment : endurance = 6
FT – Fast Transport : endurance = 6
R – Return
FR – Fast Return

A. When a TF completes or aborts a B mission then its mission will be changed to R.
B. Carriers (CV, CVL ships) may only perform "C" missions.
C. Transports (TR ships) may only perform "T" missions.
D. Submarines (SS ships) may only perform "U" missions.
E. Only TFs with "C" or "FC" missions may initiate surface combat. A TF with a C mission may only initiate surface combat if it has an endurance greater than 8.
F. Only TFs with "B" or "FB" missions may perform coastal bombardment.
G. An FB TF that completes its bombardment will have its mission changed to FC.
H. A fast TF that aborts its mission due to surface combat (see section 9.3 D) will have its mission changed to FR. A TF that has had its mission changed to FR may not unload its cargo on Guadalcanal.
I. Surface combat may cause a FB or B TF to abort its mission (see section 9.3 D).

9.3 TF Endurance.

A. A TF's endurance is reduced by one for each turn it spends at sea.
B. A TF's endurance is reduced to 10 if the TF is attacked by enemy bombers. If the endurance is already less than 10 then it is unaffected. Fortress attacks of greater than 7 squares in range will not affect endurance. Transport TFs will never be reduced.
C. A carrier TF's endurance will be reduced by 5% for *each* air strike that it launches.
D. Surface combat reduces endurance as follows:
   The attacking TF's endurance is reduced to 8 (if currently greater than 8) if the defending TF's combined defense factors multiplied by a random number between 0 and 1 is greater than 25 ((total DF of all defending ships) * rnd (1) > 25). The defending TF's endurance is reduced to 8 (if currently greater than 8) if the total attacker main guns multiplied by a random number between 0 and 1 is greater than 15 ((total MG of all attacking ships) * rnd (1) > 15). For these purposes the MG of battleships is multiplied by 4 (battleships will tend to scare off enemy TF's). The reduction in endurance given above will cause a Bombardment force to abort its mission and prevent fast TF's from unloading cargo on Guadalcanal.
E. If a TF's endurance reaches zero and it fails to dock during that turn then all of its ships will have their maximum speed reduced to 5 Knots.
F. Subs with 0 endurance may not fire torpedoes.

9.4 Supply.

Supply dumps are used only by Infantry and aircraft units on Guadalcanal.

A. Supply dumps are consumed as follows:

Infantry attack	1 to 5
U.S. daily supply	1
Japanese daily supply	1
Henderson Field Air Strike	1
U.S. Infantry defensive fire	1
Henderson Field search/sub-search/cap missions	0

B. Henderson Field may not conduct air operations if there are less than 3 supply points available.
C. Both U.S. and Japanese infantry on Guadalcanal will suffer 1%

attrition each day there are no supplies available.

D. U.S. infantry will suffer DOUBLED casualties from Japanese infantry attacks if there are no U.S. supply dumps available.

9.5 Scoring.

A. Each player receives 1 victory point (VP) for each infantry company on Guadalcanal at the end of the game.

B. Players receive VPs for sinking enemy ships equal to that ship's Defense Factor plus its cargo/aircraft capacity. Players receive 1 VP for each damage point inflicted on an enemy ship at sea at the end of the game. Players also receive 1 VP for each week a ship is out of action as of the end of the game. However, they do not receive points for the first two weeks a ship is out of action as of the end of the game. (This allows time for refitting as opposed to repair time.)

C. The player controlling Henderson Field receives 500 VPs at the end of the game. (The game ends immediately if the Japanese capture Henderson.) Henderson Field is captured by the Japanese if the Japanese attack, reduce US infantry strength on Guadalcanal to 0, and have at least one remaining company on the island.

D. The current score is summarized at the beginning of each turn.

E. Subtract US victory points from IJN victory points and compare the result to the following table to determine the victor:

1000 and up	Japanese Decisive Victory
500 to 999	Japanese Substantive Victory
100 to 499	Japanese Marginal Victory
+99 to −99	Draw
−100 to −499	American Marginal Victory
−500 to −999	American Substantive Victory
−1000 and less	American Decisive Victory

9.6 Weather

There are three levels of weather, clear, light overcast and heavy overcast. The weather is clear at the start of each game.

A. Weather will influence the ability to spot enemy task forces at ranges greater than 1.5. The chance of spotting TF's at ranges over 1.5 is reduced by 1/3 during light overcast, and by 2/3 during heavy overcast.

B. There is a random chance each turn that the weather will change. The weather is graduated such that in any one turn the weather could not change from clear to heavy overcast, it would have to change to light overcast, before it could become heavy overcast. The weather can change a maximum of one level per turn.

9.7 Limitations on Airbases

A. Henderson Field has a maximum capacity for aircraft of 100.

B. Only Zeke's may be transfered onto the Shortlands. Other aircraft may land on the Shortlands if forced to due to the loss of a carrier's flight deck. Shortlands has a maximum capacity of 60 aircraft.

9.8 Short Campaign Game (October 1 – December 31)

Players may start the campaign on October 1st by choosing the CAMPAIGN .2 option from the initial menu. All campaign game rules apply, with the only change being that the victory point schedule is changed to the following:

1200 and up	Japanese Decisive Victory
700 to 999	Japanese Substantive Victory
300 to 699	Japanese Marginal Victory
101 to 299	Draw
100 to −299	American Marginal Victory
−300 to −799	American Substantive Victory
−800 and less	American Decisive Victory

10.0 MINI-GAMES

The Guadalcanal Campaign includes 4 mini games: Coral Sea, Eastern Solomons, Santa Cruz and Guadalcanal. Due to their limited scope the mini games include some special rules and restrictions.

10.1 Mini Game Special Rules.

A. The U.S. player does not receive 500 VPs for controlling Henderson Field at the end of a mini-game.

B. New TFs may not be formed during Mini games. (Exception: the Japanese may form a new TF at Rabaul in the Guadalcanal mini-game)

C. TFs may NEVER dock during a mini-game.

D. In the Eastern Solomons Mini game the Japanese player receives 75 VPs for play balance.

E. No reinforcements will arrive during mini games.

F. The VP total shown each turn includes VP's for infantry on Guadalcanal (or Port Moresby) and damage caused to ships.

10.2 Coral Sea Exclusive Rules.

A. Infantry attacks may not occur during the Coral Sea Mini Game.

B. Japanese Transports may unload infantry units on Port Moresby. Both players receive 1 VP for each infantry company on Port Moresby at the end of the game (0 VPs for infantry on Guadalcanal).

C. The Japanese may bomb the Port Moresby Base by targeting TF#1 during the Air Strike Phase.

D. During this scenario only, U.S. aircraft may operate from the following bases: Port Moresby and Cooktown. Port Moresby is limited to a maximum of 100 planes.

E. The weather is heavy overcast at the start of the mini game.

F. The U.S. player may use his two tankers to refuel TF's at sea. TF's with an endurance under 20 and in the same square as a tanker will be given an endurance of 25. Each tanker may refuel two TF's during the game with the amount of fuel remaining being shown under supply points remaining on the tanker. The Tippecanoe is considered to have refueled U.S. TF #5 on the first turn of the game and may only refuel one more TF during the game.

10.3 Mini Game Duration.

Mini Games will end after a specified number of turns. Mini Game durations are listed below:

Coral Sea	12 turns	Santa Cruz	4 turns
Eastern Solomons	4 turns	Guadalcanal	8 turns

10.4 Mini Game Levels of Victory

Subtract US victory points from IJN victory points and compare the result to the following table to determine the victory:

125 and up	Japanese Decisive Victory
75 to 124	Japanese Substantive Victory
25 to 74	Japanese Marginal Victory
−24 to 24	Draw
−25 to −74	American Marginal Victory
−75 to −124	American Substantive Victory
−125 and less	American Decisive Victory

11.0 SOLITAIRE PLAY

When playing solitaire games, the computer will command the Japanese Forces.

A. There are 4 levels of solitaire difficulty. The level of difficulty is determined at the start of the game. At level 3 the Japanese weapons will perform according to their historical accuracy. As the level number is *decreased* the Japanese bomb, torpedo and gunfire accuracy will *increase*. These levels may be used to handicap a two player game if desired.

B. It is possible to start a game in solitaire mode, save it, and then restart it as a two-player game. To do this set the main menu to two-player mode before beginning to restart the saved game.

C. It is possible to save a two-player game and restart it as a

solitaire game when using the following restriction: All Japanese TFs must end the two player segment *IN-PORT.*

12.0 TWO-PLAYER GAMES

When using the two player format the following procedure should be observed.

A. While the U.S. player is giving commands to his forces the Japanese player should turn away or leave the room.
B. While the Japanese player is giving commands to his forces the U.S. player should turn away or leave the room.
C. During the combat resolution phase both players should view the results.

13.0 ORDER OF BATTLE

SCENARIO		INFANTRY	SUPPLIES	AIRCRAFT	SHIPS
CAMPAIGN	US	0	0	301	3CV IBB IICA ICL 2CLAA 31DD 19TR 5DMS 3APD 9SS
	IJN	1000	5	138	2CL 4DD 1TR 4APD 13SS
CORAL SEA	US	5000	15	213	2CV 7CA ICL 13DD 2TK 4SS
	IJN	0	0	273	2CV ICVL 6CA 3CL ICS 14DD 13TR 3ML 4SS
EASTERN SOLOMONS	US	12000	20	338	3CV IBB 5CA 2CLAA 18DD 6SS
	IJN	1000	5	281	2CV ICVL 3BB 13CA 3CL ICS 28DD ITR 4APD 12SS
SANTA CRUZ	US	23000	10	279	2CV IBB 3CA 3CLAA 14DD 11SS
	IJN	20000	20	373	3CV ICVL 4BB 8CA ICL 33DD 12SS
GUADALCANAL	US	32000	25	249	ICV 2BB 4CA 3CLAA ICL 22DD 7TR 12SS
	IJN	28000	5	228	ICV 4BB 3CA 2CL 30DD 11TR 14SS
CAMPAIGN.2	US	18000	25	201	ICV IBB 6CA 3CL 2CLAA 35DD 19TR 6DMS 3APD 17SS
	IJN	7000	20	307	2CV ICVL 6BB 13CA 4CL 2CS 56DD 2TR 4APD 22SS

TOTAL SHIPS IN CAMPAIGN GAME

													TOTAL
US	4CV		3BB	13CA	4CL	4CLAA		58DD	20TR	6DMS	6APD	21SS	139
IJN	4CV	2CVL	6BB	14CA	7CL		3CS	69DD	18TR		4APD	27SS	154

TOTAL SHIPS IN CAMPAIGN.2

US	3CV		3BB	8CA	4CL	4CLAA		55DD	19TR	6DMS	3APD	21SS	126
IJN	4CV	ICVL	6BB	13CA	6CL		3CS	64DD	16TR		4APD	25SS	142

14.0 STRATEGY NOTES

FORMING TFs

1. **Carrier TFs:** All available carriers should be combined in one TF. Carrier TFs should include the best available Anti-aircraft ships in their screen. Some sample carrier TF screens are shown here:
   USN: BB, CLAA, CLAA, DD, DD, DD, DD, DD, DD
   IJN: CA, CA, CA, CA, DD, DD, DD, DD, DD, DD
   When possible the IJN player should include CA-Tone and CA-Chikuma with his carriers to best utilize their enhanced search capabilities. At least 6 DD's should be included for Anti-sub protection.
2. **Fast Transport TFs:** APD, DMS and Japanese DD units may be used to rush supplies into Guadalcanal in small quantities. The USN player should protect the APDs and DMS's with an equal number of DD's. The IJN player can load 6-8 DD's with cargo and plot an "FC" mission.
3. **Transport TFs:** 6 to 10 DDs should be included to screen the TRs. Transport missions should not be attempted without strong air cover. The IJN player should "level" Henderson Field with Bombardments *and* have friendly carriers available to support a Transport mission. The USN player should have 30 or more fighters on Henderson *or* have friendly carriers available to support a transport mission.
4. **Bombardment TFs:** The USN player should seldom risk his ships to bombard Cape Esperance. The IJN player should bombard Henderson Field as often as possible. A sample Bombardment force is shown here: BB, BB, CA, CA, DD, DD, DD, DD, DD, DD
   The IJN player has enough ships to "rotate" 3 battleship groups and continuously suppress Henderson Field. Battleships cause terrific damage when bombarding. Cruiser bombardments are only a nuisance.
5. **Combat Patrol TFs:** The USN player *must* make an effort to block Japanese Battleship Bombardment forces. A force of 3 to 6 cruisers and 5 to 10 destroyers performing a "C" mission will usually cause a bombardment force to abort its mission. CLAA ships should not be used in this role and Battleships should only be used when no CLs or CAs are available.
6. **Submarine TFs:** Submarine forces should contain 6 to 10 subs. The 15 knot subs should not be combined in the same TF as the 10 knot subs. USN subs usually find their best "hunting" when stationed in the slot SE of Shortlands. IJN subs usually do best in the waters SE of Guadalcanal.

AIR OPERATIONS

1. **Normal CAP:** Normal CAP provides the *best* protection for the "home" TF or Base but *no* protection for other TFs or bases in the area. Normal CAP should be flown over Henderson Field when there are no friendly transport groups "unloading" at Guadalcanal. Carriers should be protected by normal CAP whenever contact with enemy carriers is expected.
2. **Long Range CAP:** Long Range CAP provides protection for friendly units up to 5 spaces away from the launching base/CV. Long Range CAP is best used to protect Transport and Bombardment groups that are within range of enemy land-based aircraft.
3. **Search:** Air search is useful for providing an advance warning of approaching enemy fleets and designating targets for airstrikes.

Whenever possible, each base should launch 6 to 12 bombers to supplement its search Planes.

4. **Sub Search:** A *successful* sub search is a powerful deterrent against sub attacks. "Sighted" subs have reduced attack effectiveness and are open to attack from enemy bombers. Henderson Field should use 20 to 30 bombers on sub-search on turns when the IJN surface fleet is out of range. Carrier TFs should use a strong sub-search whenever contact with enemy carriers seems unlikely. Bombers should never be wasted on sub-search when a carrier vs. carrier battle seems likely.
5. **Air Strikes:** Carrier vs. Carrier combat is critical and often decisive. Carrier air groups should not be frittered away on secondary targets when an engagement with enemy carriers seems probable within a couple of days. Carrier aircraft should never be used to "soften up" Henderson Field — it's too expensive and the results are usually disappointing. Rabaul based aircraft should attack Henderson Field only if there are 40 or more Bettys available OR if you expect that supplies are critically low on Henderson Field. Henderson Field Bombers should attack at every opportunity to inflict damage on enemy ships.
6. **Counterstrikes:** Counterstrikes allow you to counterattack following airstrikes from unsighted enemy carriers. U.S.N. carriers may use counterstrikes without penalty (except in the Coral Sea Scenario). IJN carriers prepare counterstrikes at the risk of having their armed and fueled aircraft explode on deck following enemy bomb or torpedo hits.
7. **Aircraft Transfers:** Carriers with 10 to 25 percent damage should transfer their aircraft before docking. USN carriers can transfer their air groups to reinforce Henderson Field. Henderson Field should transfer all its aircraft to Espirtu Santo when supplies fall below 3 and resupply is not immediate.

SHIP DATA

AMERICAN SHIPS

Guadalcanal Scenarios

	MG	AA	TT	MS	CC	DF	TF	ARV*
CV-SARATOGA	0	16	0	30	96	60	4	0
CV-ENTERPRISE	0	8	0	30	96	44	4	0
CV-HORNET	0	8	0	30	96	44	E	22.5
CV-WASP	0	8	0	30	84	34	4	0
BB-NORTH CAROLINA	9	20	0	25	0	81	4	0
BB-WASHINGTON	9	20	0	25	0	81	E	35
BB-SOUTH DAKOTA	9	16	0	25	0	81	E	70
CA-MINNEAPOLIS	9	8	0	30	0	24	4	0
CA-NEW ORLEANS	9	8	0	30	0	24	4	0
CA-PORTLAND	9	8	0	30	0	24	4	0
CA-SAN FRANCISCO	9	8	0	30	0	24	4	0
CA-SALT LAKE CITY	10	8	0	30	0	22	4	0
CA-AUSTRALIA	8	4	8	30	0	24	5	0
CA-CANBERRA	8	4	8	30	0	24	5	0
CA-CHICAGO	9	8	0	30	0	24	5	0
CA-VINCENNES	9	8	0	30	0	24	5	0
CA-QUINCY	9	8	0	30	0	24	5	0
CA-ASTORIA	9	8	0	30	0	24	5	0
CL-HOBART	8	4	8	30	0	15	6	0
CLAA-ATLANTA	0	16	8	30	0	16	4	0
CLAA-SAN JUAN	0	16	8	30	0	16	6	0
CA-NORTHAMPTON	9	8	0	30	0	22	E	70
CA-PENSACOLA	10	8	0	30	0	22	E	70
CL-BOISE	15	8	0	30	0	24	E	50
CL-HELENA	15	8	0	30	0	24	E	50
CLAA-SAN DIEGO	0	16	8	30	0	16	E	70
CLAA-JUNEAU	0	16	8	30	0	16	E	70
CL-HONOLULU	15	8	0	30	0	24	E	100
DD-FARRAGUT	0	5	8	35	0	7	4	0
DD-WORDEN	0	5	8	35	0	7	4	0
DD-MACDONOUGH	0	5	8	35	0	7	4	0
DD-DALE	0	5	8	35	0	7	4	0
DD-PHELPS	0	8	8	35	0	8	4	0
DD-BALCH	0	8	8	35	0	8	4	0
DD-MAURY	0	5	16	35	0	7	4	0
DD-GWIN	0	4	10	35	0	7	4	0
DD-BENHAM	0	5	16	35	0	7	4	0
DD-GRAYSON	0	4	10	35	0	7	4	0
DD-LANG	0	5	16	35	0	7	4	0
DD-STERETT	0	5	16	35	0	7	4	0
DD-AARON WARD	0	4	5	35	0	7	4	0
DD-STACK	0	5	16	35	0	7	4	0
DD-LAFFEY	0	4	5	35	0	7	4	0
DD-FARENHOLT	0	4	5	35	0	7	4	0
DD-HULL	0	5	8	35	0	7	4	0
DD-DEWEY	0	5	8	35	0	7	4	0
DD-ELLET	0	5	16	35	0	7	6	0
DD-WILSON	0	5	16	35	0	7	6	0
DD-MONSSEN	0	4	10	35	0	7	6	0
DD-BUCHANAN	0	4	5	35	0	7	6	0

	MG	AA	TT	MS	CC	DF	TF	ARV
DD-SELFRIDGE	0	8	8	35	0	8	6	0
DD-PATTERSON	0	5	16	35	0	7	5	0
DD-RALPH TALBOT	0	5	16	35	0	7	5	0
DD-MUGFORD	0	5	16	35	0	7	6	0
DD-JARVIS	0	5	16	35	0	7	5	0
DD-BLUE	0	5	16	35	0	7	5	0
DD-HELM	0	5	16	35	0	7	5	0
DD-HENLEY	0	5	16	35	0	7	6	0
DD-BAGLEY	0	5	16	35	0	7	5	0
DD-LANSDOWNE	0	4	5	35	0	7	E	22.5
DD-MUSTIN	0	5	12	35	0	7	E	22.5
DD-O'BRIEN	0	5	12	35	0	7	E	22.5
DD-DUNCAN	0	4	5	35	0	7	E	50
DD-MCCALLA	0	4	5	35	0	7	E	50
DD-NICHOLAS	0	5	10	35	0	8	E	55
DD-MEREDITH	0	4	10	35	0	7	E	55
DD-LARDNER	0	4	5	35	0	7	E	60
DD-PORTER	0	8	8	35	0	8	2E	70
DD-MAHAN	0	5	12	35	0	7	2E	70
DD-CUSHING	0	5	12	35	0	7	2E	70
DD-PRESTON	0	5	12	35	0	7	2E	70
DD-SMITH	0	5	12	35	0	7	2E	70
DD-CONYNGHAM	0	5	12	35	0	7	2E	70
DD-SHAW	0	5	12	35	0	7	2E	70
DD-MORRIS	0	5	12	35	0	7	2E	70
DD-ANDERSON	0	5	12	35	0	7	2E	70
DD-HUGHES	0	5	12	35	0	7	2E	70
DD-RUSSELL	0	5	12	35	0	7	2E	70
DD-BARTON	0	4	5	35	0	7	2E	70
DD-FLETCHER	0	5	10	35	0	8	2E	70
DD-O'BANNON	0	5	10	35	0	8	E	80
DD-CLARK	0	5	12	35	0	7	E	80
DD-DRAYTON	0	5	12	35	0	7	E	100
DD-PERKINS	0	5	12	35	0	7	E	100
DD-LAMSON	0	5	12	35	0	7	E	100
DD-WALKE	0	5	12	35	0	7	E	85
APD-COLHOUN	0	3	0	25	1	6	6	0
APD-LITTLE	0	3	0	25	1	6	6	0
APD-GREGORY	0	3	0	25	1	6	6	0
APD-MCKEAN	0	3	0	25	1	6	E	6
APD-MANLEY	0	3	0	25	1	6	E	25
APD-BALLARD	0	3	0	25	1	6	E	45
DMS-HOPKINS	0	3	0	30	1	6	6	0
DMS-TREVER	0	3	0	30	1	6	6	0
DMS-ZANE	0	3	0	30	1	6	6	0
DMS-SOUTHARD	0	3	0	30	1	6	6	0
DMS-HOVEY	0	3	0	30	1	6	6	0
DMS-GAMBLE	0	3	0	30	1	6	E	17.5
TR-JAMESTOWN	0	1	0	15	4	12	E	55
TR-FULLER	0	1	0	15	4	12	6	0

* Days until arrival

	MG	AA	TT	MS	CC	DF	TF	ARV
TR-AMERICAN LEGION	0	2	0	15	6	16	6	0
TR-MCCAWLEY	0	1	0	15	4	12	6	0
TR-BARNETT	0	1	0	15	4	12	6	0
TR-G.F. ELLIOTT	0	1	0	15	4	12	6	0
TR-LIBRA	0	1	0	15	4	12	6	0
TR-HUNTER LIGGETT	0	2	0	15	6	16	6	0
TR-ALCHIBA	0	1	0	15	4	12	6	0
TR-FOMALHAUT	0	1	0	15	4	12	6	0
TR-BETELGEUSE	0	1	0	15	4	12	6	0
TR-CRESCENT CITY	0	1	0	15	4	12	6	0
TR-PRES. HAYES	0	2	0	15	6	16	6	0
TR-PRES. ADAMS	0	2	0	15	6	16	6	0
TR-ALHENA	0	1	0	15	4	12	6	0
TR-NEVILLE	0	1	0	15	4	12	6	0
TR-ZEILIN	0	2	0	15	6	16	6	0
TR-HEYWOOD	0	1	0	15	4	12	6	0
TR-PRES. JACKSON	0	2	0	15	6	16	6	0
SS-38	0	0	16	10	0	5	7	0
SS-39	0	0	16	10	0	5	7	0

	MG	AA	TT	MS	CC	DF	TF	ARV
SS-42	0	0	16	10	0	5	7	0
SS-43	0	0	16	10	0	5	7	0
SS-44	0	0	16	10	0	5	7	0
SS-46	0	0	16	10	0	5	B	7
SS-47	0	0	16	10	0	5	B	7
SS-37	0	0	16	10	0	5	B	0
SS-40	0	0	16	10	0	5	B	0
SS-41	0	0	16	10	0	5	B	0
SS-45	0	0	16	10	0	5	B	0
SS-SAILFISH	0	0	20	15	0	6	B	25
SS-SCULPIN	0	0	20	15	0	6	B	25
SS-STURGEON	0	0	20	15	0	6	B	25
SS-GRAMPUS	0	0	24	15	0	6	B	55
SS-GRAYBACK	0	0	24	15	0	6	B	55
SS-GUDGEON	0	0	24	15	0	6	B	55
SS-SNAPPER	0	0	20	15	0	6	B	65
SS-SWORDFISH	0	0	20	15	0	6	B	65
SS-TROUT	0	0	24	15	0	6	B	67
SS-AMBERJACK	0	0	24	15	0	6	B	87.5

JAPANESE SHIPS

	MG	AA	TT	MS	CC	DF	TF	ARV
CV-SHOKAKU	0	16	0	30	84	55	T	10
CV-ZUIKAKU	0	16	0	30	84	55	T	10
CVL-RYUJO	0	8	0	25	48	22	T	10
CVL-ZUIHO	0	8	0	25	30	25	T	37.5
CV-JUNYO	0	12	0	25	53	30	T	70
CV-HIYO	0	12	0	25	53	30	T	70
BB-YAMATO	9	12	0	25	0	99	T	15
BB-MUTSU	8	8	0	25	0	62	T	15
BB-HIEI	8	8	0	30	0	61	T	10.5
BB-KIRISHIMA	8	8	0	30	0	61	T	10.5
BB-KONGO	8	8	0	30	0	61	T	10.5
BB-HARUNA	8	8	0	30	0	61	T	10.5
CA-CHOKAI	10	8	32	35	0	26	R	0.5
CA-AOBA	6	4	16	35	0	20	R	0.5
CA-KAKO	6	4	16	35	0	20	R	0.5
CA-KINUGASA	6	4	16	35	0	20	R	0.5
CA-FURUTAKA	6	4	16	35	0	20	R	0.5
CA-ATAGO	10	8	32	35	0	26	T	11
CA-MAYA	10	8	32	35	0	26	T	11
CA-TAKAO	10	8	32	35	0	26	T	11
CA-MYOKO	10	8	32	35	0	26	T	13
CA-HAGURO	10	8	32	35	0	26	T	13
CA-SUZUYA	10	8	24	35	0	22	T	15
CA-KUMANO	10	8	24	35	0	22	T	15
CA-CHIKUMA	8	8	24	35	0	24	T	6
CA-TONE	8	8	24	35	0	24	T	6
CL-TENRYU	4	2	6	30	1	11	R	0
CL-YUBARI	6	2	4	35	1	10	R	0
CL-YURA	7	2	16	35	1	14	T	13
CL-NAGARA	7	2	16	35	1	14	T	15
CL-ISUZU	7	2	16	35	1	14	T	65
CL-JINTSU	7	2	16	35	1	14	R	10
CL-SENDAI	7	2	16	35	1	14	T	80
CS-CHITOSE	0	4	0	25	2	21	R	13
CS-NISSHIN	0	6	0	25	2	21	R	60
CS-AKITSUSHIMA	0	4	0	20	2	12	R	22.5
TR-BOSTON MARU	0	1	0	10	4	12	R	10
TR-TAIFUKU MARU	0	1	0	10	4	12	R	10
TR-MEIYO MARU	0	1	0	15	4	12	R	0
TR-KINRYU MARU	0	2	0	15	6	16	R	13
TR-AZUMASAN MARU	0	2	0	15	6	16	R	65
TR-KYUSHU MARU	0	1	0	15	4	12	R	65
TR-SASAKO MARU	0	2	0	15	6	16	R	65
TR-ARIZONA MARU	0	2	0	15	6	16	R	80
TR-KUMAGAWA MARU	0	1	0	15	4	12	R	80
TR-SADO MARU	0	2	0	15	6	16	R	80
TR-NAGARA MARU	0	2	0	15	6	16	R	80
TR-NAKO MARU	0	2	0	15	6	16	R	80
TR-CANBERRA MARU	0	2	0	15	6	16	R	80

	MG	AA	TT	MS	CC	DF	TF	ARV
TR-BRISBANE MARU	0	2	0	15	6	16	R	80
TR-KINUGAWA MARU	0	1	0	15	4	12	R	80
TR-HIROKAWA MARU	0	1	0	15	4	12	R	65
TR-YAMAURA MARU	0	1	0	15	4	12	R	65
TR-YAMATSUKI MARU	0	1	0	15	4	12	R	65
SS-I2	0	0	20	15	0	6	T	50
SS-I3	0	0	20	15	0	6	T	100
SS-I9	0	0	18	15	0	6	T	0
SS-I15	0	0	18	15	0	6	T	0
SS-I16	0	0	20	15	0	6	T	45
SS-I19	0	0	18	15	0	6	T	0
SS-I122	0	0	12	10	0	6	T	50
SS-I7	0	0	20	15	0	6	T	30
SS-I20	0	0	20	15	0	6	T	45
SS-I21	0	0	18	15	0	6	T	40
SS-I26	0	0	18	15	0	6	T	0
SS-I123	0	0	12	10	0	6	T	0
SS-I172	0	0	12	10	0	6	T	50
SS-I176	0	0	12	10	10	6	T	35
SS-I24	0	0	12	10	0	6	T	40
SS-I17	0	0	20	15	0	6	T	30
SS-I31	0	0	18	15	0	6	T	0
SS-RO34	0	0	10	15	0	5	T	0
SS-RO33	0	0	10	15	0	5	T	0
SS-I4	0	0	20	15	0	6	T	30
SS-I5	0	0	20	15	0	6	T	30
SS-I8	0	0	20	15	0	6	T	30
SS-RO22	0	0	20	15	0	6	T	35
SS-I174	0	0	20	15	0	6	T	0
SS-I175	0	0	20	15	0	6	T	0
SS-I121	0	0	12	10	0	6	T	0
SS-I11	0	0	18	15	0	6	T	0
APD-1	0	2	2	20	1	6	R	0
APD-2	0	2	2	20	1	6	R	0
APD-34	0	2	2	20	1	6	R	0
APD-35	0	2	2	20	1	6	R	0
DD-AKIKAZE	0	2	2	35	1	7	R	0
DD-HAKAZE	0	2	2	35	1	7	R	1
DD-TACHIKAZE	0	2	2	35	1	7	R	21
DD-YUNAGI	0	2	6	35	1	6	R	0
DD-YAYOI	0	2	6	35	1	6	R	0
DD-UZUKI	0	2	6	35	1	6	R	0
DD-MUTSUKI	0	2	6	35	1	6	R	15
DD-FUMIZUKI	0	2	06	35	1	6	R	21
DD-MOCHIZUKI	0	2	6	35	1	7	T	30
DD-AKATSUKI	0	6	18	35	1	7	T	30
DD-IKAZUCHI	0	6	18	35	1	7	R	66
DD-INAZUMA	0	6	18	35	1	7	T	80
DD-YUGIRI	0	6	18	35	1	7	T	15
DD-USHIO	0	6	18	35	1	7	T	22
DD-URANAMI	0	6	18	35	1	7	T	22

	MG	AA	TT	MS	CC	DF	TF	ARV
DD-SHIRAYUKI	0	6	18	35	1	7	R	16
DD-SHIRAKUMO	0	6	18	35	1	7	T	16
DD-SAZANAMI	0	6	18	35	1	7	T	22
DD-MURAKUMO	0	6	18	35	1	7	R	16
DD-ISONAMI	0	6	18	35	1	7	T	63
DD-HATSUYUKI	0	6	18	35	1	7	R	16
DD-FUBUKI	0	6	18	35	1	7	R	16
DD-AYANAMI	0	6	18	35	1	7	T	14
DD-ASAGIRI	0	6	18	35	1	7	T	15
DD-AMAGIRI	0	6	18	35	1	7	T	15
DD-AKEBONO	0	6	18	35	1	7	T	53
DD-ARIAKE	0	5	12	35	1	7	T	10
DD-YUGURE	0	5	12	35	1	7	T	10
DD-YUDACHI	0	6	18	35	1	7	T	14
DD-UMIKAZE	0	6	18	35	1	7	R	10
DD-SUZUKAZE	0	5	16	35	1	7	R	10
DD-SHIRATSUYU	0	5	16	35	1	7	R	54
DD-SHIGURE	0	5	16	35	1	7	R	53
DD-SAMIDARE	0	5	16	35	1	7	T	14
DD-MURASAME	0	5	16	35	1	7	T	14
DD-KAWAKAZE	0	5	16	35	1	7	R	10
DD-HARUSAME	0	5	16	35	1	7	T	25
DD-ARASHIO	0	6	16	35	1	8	R	105
DD-ASAGUMO	0	6	16	35	1	8	T	10
DD-ASASHIO	0	6	16	35	1	8	R	84
DD-MICHISHIO	0	6	16	35	1	8	R	84
DD-MINEGUMO	0	6	16	35	1	8	T	10

	MG	AA	TT	MS	CC	DF	TF	ARV
DD-NATSUGUMO	0	6	16	35	1	8	R	12
DD-YUKIKAZE	0	6	16	35	1	8	T	34
DD-URAKAZE	0	6	16	35	1	8	T	9
DD-TOKITSUKAZE	0	6	16	35	1	8	T	15
DD-TANIKAZE	0	6	16	35	1	8	T	9
DD-OYASHIO	0	6	16	35	1	8	T	14
DD-NOWAKE	0	6	16	35	1	8	T	15
DD-MAIKAZE	0	6	16	35	1	8	T	9
DD-KUROSHIO	0	6	16	35	1	8	T	14
DD-KAGERO	0	6	16	35	1	8	R	9
DD-ISOKAZE	0	6	16	35	1	8	R	9
DD-HAYASHIO	0	6	16	35	1	8	T	16
DD-HATSUKAZE	0	6	16	35	1	8	T	15
DD-HAMAKAZE	0	6	16	35	1	8	T	9
DD-HAGIKAZE	0	6	16	35	1	8	T	9
DD-ARASHI	0	6	16	35	1	8	T	9
DD-AMATSUKAZE	0	6	16	35	1	8	T	15
DD-AKIGUMO	0	6	16	35	1	8	T	15
DD-KAZEGUMO	0	6	16	35	1	8	T	15
DD-MAKIGUMO	0	6	16	35	1	8	T	15
DD-MAKINAMI	0	6	16	35	1	8	T	36
DD-NAGANAMI	0	6	16	35	1	8	T	36
DD-TAKANAMI	0	6	16	35	1	8	T	65
DD-YUGUMO	0	6	16	35	1	8	T	15
DD-TERUZUKI	0	8	8	35	1	8	T	68
DD-AKIZUKI	0	8	8	35	1	8	R	14
DD-SHIKINAMI	0	6	18	35	1	7	R	22

Coral Sea Scenario

JAPANESE SHIPS

	MG	AA	TT	MS	CC	DF	TF	ARV
CV-SHOKAKU	0	16	0	30	84	55	15	0
CV-ZUIKAKU	0	16	0	30	84	55	15	0
CVL-SHOHO	0	8	0	25	30	25	18	0
CA-MYOKO	10	8	32	35	0	26	15	0
CA-HAGURO	10	8	32	35	0	26	15	0
CA-AOBA	6	4	16	35	0	20	18	0
CA-KAKO	6	4	16	35	0	20	18	0
CA-FURUTAKA	6	4	16	35	0	20	18	0
CA-KINUGASA	6	4	16	35	0	20	18	0
CL-TENRYU	4	2	6	30	1	11	16	0
CL-TATSUTA	4	2	6	30	1	11	16	0
CL-YUBARI	6	2	4	35	1	10	16	0
CS-KAMIKAWA MARU	0	4	0	20	2	12	16	0
TR-TOHO MARU	0	2	0	15	6	16	16	0
TR-BRAZIL MARU	0	2	0	15	6	16	16	0
TR-AZUMASAN MARU	0	1	0	15	4	12	16	0
TR-AKIBASAN MARU	0	2	0	15	6	16	16	0
TR-HAKUSAN MARU	0	2	0	15	6	16	16	0
TR-KEIYO MARU	0	1	0	15	4	12	16	0
TR-MOGAMIGAWA MARU	0	1	0	15	4	12	16	0
TR-KINRYU MARU	0	1	0	15	4	12	16	0
TR-NAGATA MARU	0	1	0	15	4	12	16	0
TR-SAGARA MARU	0	1	0	15	4	12	16	0
TR-SHOKA MARU	0	1	0	15	4	12	16	0
TR-TAMAGAWA MARU	0	1	0	15	4	12	16	0
TR-GOYO MARU	0	1	0	15	4	12	17	0
SS-I22	0	0	18	15	0	6	19	0
SS-I24	0	0	18	15	0	6	19	0
SS-I27	0	0	20	15	0	6	19	0
SS-I28	0	0	20	15	0	6	19	0
ML-OKINOSHIMA	0	4	0	20	1	12	17	0
ML-KOEI MARU	0	4	0	20	1	12	17	0
ML-TSUGARU	0	4	0	20	1	12	16	0
DD-ARIAKE	0	5	12	35	1	7	15	0
DD-YUGURE	0	5	12	35	1	7	15	0
DD-SHIGURE	0	5	16	35	1	7	15	0
DD-SHIRATSUYU	0	5	16	35	1	7	15	0
DD-USHIO	0	6	18	35	1	7	15	0
DD-AKEBONO	0	6	18	35	1	7	15	0
DD-KIKUZUKI	0	2	6	35	1	6	17	0

	MG	AA	TT	MS	CC	DF	TF	ARV
DD-YUZUKI	0	2	6	35	1	6	17	0
DD-SAZANAMI	0	6	18	35	1	7	18	0
DD-OITE	0	2	6	35	1	6	16	0
DD-ASANAGI	0	2	6	35	1	6	16	0
DD-MUTSUKI	0	2	6	35	1	6	16	0
DD-MOCHIZUKI	0	2	6	35	1	6	16	0
DD-YAYOI	0	2	6	35	1	6	16	0

AMERICAN SHIPS

	MG	AA	TT	MS	CC	DF	TF	ARV
CV-YORKTOWN	0	8	0	30	96	44	4	0
CV-LEXINGTON	0	4	0	30	96	60	5	0
CA-MINNEAPOLIS	9	8	0	30	0	24	5	0
CA-NEW ORLEANS	9	8	0	30	0	24	5	0
CA-ASTORIA	9	8	0	30	0	24	4	0
CA-CHESTER	9	8	0	30	0	22	4	0
CA-PORTLAND	9	8	0	30	0	24	4	0
CA-CHICAGO	9	8	0	30	0	22	6	0
CA-AUSTRALIA	8	4	8	30	0	24	6	0
CL-HOBART	8	4	8	30	0	15	6	0
DD-MORRIS	0	5	12	35	0	7	4	0
DD-ANDERSON	0	5	12	35	0	7	4	0
DD-HAMMANN	0	5	12	35	0	7	4	0
DD-RUSSELL	0	5	12	35	0	7	4	0
DD-PHELPS	0	8	8	35	0	8	5	0
DD-DEWEY	0	5	8	35	0	7	5	0
DD-FARRAGUT	0	5	8	35	0	7	5	0
DD-AYLWIN	0	5	8	35	0	7	5	0
DD-MONAGHAN	0	5	8	35	0	7	5	0
DD-PERKINS	0	5	12	35	0	7	6	0
DD-WALKE	0	5	12	35	0	7	6	0
DD-WORDEN	0	5	8	35	0	7	7	0
DD-SIMS	0	5	12	35	0	7	7	0
TK-NEOSHO	0	2	0	15	6	16	7	0
TK-TIPPECANOE	0	2	0	15	6	16	7	0
SS-38	0	0	16	10	0	5	8	0
SS-42	0	0	16	10	0	5	8	0
SS-44	0	0	16	10	0	5	8	0
SS-47	0	0	16	10	0	5	8	0

15.0 CREDITS

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Printing — A&a Printing
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If you have any questions or problems regarding the program or game, please send a self-addressed, stamped envelope with your question to Strategic Simulations, Inc., 465 Fairchild Drive, Suite 108, Mountain View, CA 94043.

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